

AN INTERVIEW WITH

H.R. SMITH
(ENGINEER)

BY

J.N. LUDLOW

H. R. SMITH

26th February 1991

JNL

Mr. Smith perhaps we could start the interview by telling us a little bit about your early education and perhaps what led you into Engineering as a career.

HRS

Well my school education was at Fort Street High School when it was still near the bridge and in 1914 I went to Sydney University and took up Engineering. The main reason I think, why I took up Engineering was that I didn't fancy being called out at all hours being a doctor.

I went to third year as you could then in Science. I graduated in Science in 1918 and in Civil Engineering in 1920. Two other chaps and I tried to do Electrical Engineering in the last year at the same time. I started off on the Electrical side then after a couple years I got a job as head of the Mechanical and Electrical Engineering Dept. at the School of Mines in Bendigo, Victoria.

In 1936 I got leave to go abroad to do some study. I went to the U.S. and Britain and I was away for about 6 months altogether. I took up my job there again in 1926 and then I was desirous in getting back to Sydney and a job was advertised as assistant to Mr. Rankin who later became the Sydney Building Surveyor and I got a job then as his assistant and came to Sydney.

JNL

Was this working for Mr. Rankin or the firm

HRS

With Mr. Rankin as his assistant, checking Engineering drawings and calculations. It was the first time it had been done at the Town Hall and it's been carried on ever since.

JNL

How many of you were there checking the calculations?

HRS

Only the two of us. Then near the end of the first year, Mr. Rankin was offered a job with R.S. Morris & Co. the Structural Engineers and he refused and it was offered to me and I took. So I started at R.S. Morris & Co. as their designing Engineer and most of the design work in those days was done by the Structural Engineering firms and the reinforced concrete or Structural steel.

In 1933 The Association of Consulting and Structural Engineers was formed with Alex Morrison as the first President and I joined in the second year, 1934 and in 1936 Mr. Morris died and I started on my own as a Consulting Structural Engineer.

JNL

Had you done much Electrical and Mechanical work at all after you left the School of Mines?

HRS

Only in the lecturing part. When I came back to Sydney I found that there were very few jobs available and most of them were Government jobs so I went back to the Civil Engineering side.

JNL

Do you remember much about when you were checking with the City Council. Checking other Consultant's designs. Were they mainly coming from the various Structural steel firms or were there a few outside Consultants at that time.

HRS

There were a few outside Consultants but most of them had some connections. Wagner & Macdonald was then, Stanley and Charlie Reid he never had an academic background I don't think. He was connected to a steel firm and then I can't remember the one with Truss Concrete which was later Ernie Platt.

JNL

Was it Everingham?

HRS

Yes, Everingham.

JNL

So in 1936 did you go into partnership or did you form your own practice.

HRS

I formed my own business. My main clients at first were clients who had been going to R.S. Morris & Co. which would consist mainly of builders and some Architects.

JNL

Do you remember any of the early names at all who you did work for?

HRS

The Architects? Bruce Gzelak was one of the oldest who designed the extensions to the Hotel Australia and also the War Memorial in Hyde Park of which I did the Engineering work. I can't remember what date that was. In 1937 I became the third President of the Association of Consulting Structural Engineers and from that date on the Association started to move towards getting Consulting Engineers to be independent of the steel firms although some joined who stood in and stayed on quiet a while because the rules were that they had their own office and be independent.

JNL

When you first started in 1936, whereabouts was your office located?

HRS

In Hamilton Street. Which was later demolished for Australia Square.

JNL

Did you work on your own or did you have some staff in those early days?

HRS

I had some draftsmen in the early days and

Distortion

HRS

Then the Association of Engineers' tendency then was getting independence from the Structural steel firms of which I was independent in 1936. One of the principal jobs which was putting in the basement of the Sydney Morning Herald and all the machines had to keep running and they were sensitive to a ten thousandth of an inch deflection and the American Engineers said it couldn't be done but we did it without mishap. All the work was still being carried on in 1939 when I was called up (I joined the Army six months before the War broke out). In 1940 I was called up full time. At the outbreak of War all the officer volunteerd for the RAF but I didn't get a job until 1942.

JNL

Did that mean you closed your practice down then?

HRS

No, Terry Hale a draftsman who had done a tech course in Engineering carried on and he later became a Consulting Structural Engineer on his own account. Other draftsmen I had were Crooks, who was later Crooks Michell and Peacock and Abbott and Bond.

JNL

Were these all employed as draftsmen?

JNL

Did they do their Engineering part time whilst they were doing drafting during the day?

HRS

No, they didn't do Engineering work at all. I did it all myself except for my assistant, I can't recollect his name. When the war with Japan broke out my unit was making waves with the anti aircraft guns down at Jarvis Bay and we were recalled and had the job of camouflaging forts at North Head, West Head, Cape Banks and South Head. Later on in January 1944 I went over to Western Australia with the Armoured Division as they feared the Japanese might land over there and my unit became a AF unit over there and we were sent to New Guinea.

JNL

Did you have any contact with your firm over those years? You had Terry Hale looking after it for you. Did you manage to still keep contact with him.

HRS

Yes, I would keep contact now and then when I was in Sydney. It was difficult when I was in the west.

JNL

There was some Consulting work still available during the war years?

HRS

Yes, not a great deal.

JNL

I understand some firms did close down during the War because of lack of work. When did you come back to the firm again.

HRS

I was discharged in May 1944. Someone in headquarters remembered that I was two years over age for a field command and I was recalled and transferred to New Guinea Force Headquarters at Lai and when I got there they had gone back to Sydney so I asked to be discharged because I didn't relish being back in headquarters. So I was discharged at the end of May 1944 and I resumed business.

JNL

Did you find that most of your old clients were still around when you resumed business in 1944.

HRS

Yes, most of the old clients were still active. I did get a bout of Malaria when I got back. Mr. Wilcott helped me out then but I retired then in 1972.

JNL

Before the War when you first started practice, do you have any recollections of the sort of hours that the people worked in your office.

HRS

Right from the start we worked 7 and a half hour day. 37 and a half hour week.

JNL

Even before the War

HRS

Yes

JNL

Would that have been less than normal 37 and a half hours in those days.

HRS

Most offices worked to normal office hours of 35 hours a week. I kept that on right until I retired at the end of 1972.

JNL

Did you take on any partners at all into your practice?

HRS

Yes, Roy Versailles joined me in I think, 1952. He was in the War and came back and finished his Engineering course and then I took him on as a partner in 1952. When Mr. Roy Versailles joined me as junior partner, the firm was known as H.R. Smith & Versailles and is still carrying on business in that name although I have no further interest in it.

JNL

Just returning back to the pre-War years and perhaps if we could go back to when you were first checking calculations in the City Council. Were you then given both Structural drawings or calculations to check or merely drawings?

HRS

We had to check the drawings and the Structural calculations.

JNL

Do you think there has been change in the format of drawings or calculations in the years since then?

HRS

Not a great deal except of course in the calculations. The computer business came into it more now. It had only just started when I retired.

JNL

But the amount of detail shown on the Structural drawings, has that been much the same over the years.

HRS

As far as the Association of Engineers in Sydney, I was always very meticulous in giving full drawings but we found that in other states the drawings were very sketchy at that time and the calculation too but then, of course, I think the other states in the principal cities took up the checking of calculations too which was started in Sydney.

JNL

What about supervision, when you were practicing as a Consulting Engineer were most of your commissions including doing some form of inspection work on the projects or mainly just documentation?

HRS

For many years after I started there was very little in the way of supervision although I did check the reinforcing steel without any extra pay and looked at the pouring of the concrete. I remember one builder I told that his mix was too lean he said " I never skipped on cement - I might put a bit more metal and sand in". We originally started the payment was through the firms, 4 pound a tonne on the steel work and that carried on for quite a few years.

Gradually the Association of Consulting Engineers got to the form that it had up to recently. The Trade Practices Commission has stepped in now and wants it altered which is a percentage basis on the Structural cost of the job of 6% Structural cost, 10% included supervision. In the early days there was very little general supervision. It was not until the last 10 or 12 years that any supervision much has been demanded by the clients.

JNL

Because of this lack of supervision by the Engineers did you find more problems later on after they were built or no less or no more than in present days.

HRS

I didn't have many problems. They found a few cracks of little significance which you could account for in building but as far as I was concerned I never had any trouble. I have been called in on a few cases where there have been partial small collapses. I don't know if you are interested in any of those.

JNL

What about your staff. Did you find that most of your staff stayed with you for many years or did you have a turnover of staff much like we have today.

HRS

Well for many years they stayed but then when a lot of other firms started up and offered them a few more pounds. My maximum staff, I think, was six. My partner and six draftsmen.

JNL

Do you remember at all what sort of salaries were paid in those days before the War.

HRS

I can't remember the draftsmen's salary. About 80 pounds a week would have been the maximum then and when I finished it was about 155 pounds for the top draftsmen in 1972. It's gone up considerably since.

JNL

What about your own salary when you first started practice. Did you find the first few years that your income was relatively good or was it low?

HRS

It was relative to the cost of living in those days - it was reasonable, I wouldn't say good. Round about the 50's was when it started to come good when I did a lot of big jobs. The Herald buildings in Broadway a big complex, Coles main store in King & Pitt Street and quite a few others.

JNL

Did you find most of the work was coming to you from Architects or were you getting your commission directly through the client themselves.

HRS

Only one or two cases through the client, mostly through the Architects. Also we did work for builders then like Stuart Brothers who had their own Architect and it came through them.

JNL

Did you have a fairly close relationships with other Consulting Engineers before the War or were you in competition and were not really that close to each other.

HRS

No, we had a pretty close relationship. I think there were only about 30 in the Association before the War and about 110 now.

JNL

So you did get on?

HRS

Yes, we had frequent morning coffee meetings to discuss things between ourselves.

JNL

Who were the leading sort of Engineers in the pre-War period?
Or leading Consulting Engineers.

HRS

Macdonald Wagner and Priddle, Charlie Reid, Malcolm Stanley. The Truss
Concrete chap, Everingham.

JNL

Would these people have employed more staff or had they just been in
practice longer?

HRS

They had been in practice longer and of course, they had bigger staff.
A lot of them branched out into the Civil and Electrical and quantity
surveying as well.

JNL

Mr. Smith - thank you very much.